



*Know the Earth...Show the Way*

# Review of Compression Symposium II

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# Review of Agenda

- The first half was focused on the JPEG 2000 status and the development of the Profile.
  - Development of standard profile
- Several Commercial vendors presented on JPEG 2000 development
  - Mapping Science (GeoJP2)
  - Aware (Software, SDK)
  - RSI/Kodak (IAS)
  - Paragon (ELT 5500, 3500, 1500 End of 2003)
  - Sensor Systems (Remote View 2.4)
  - Leica Geosystems (ERDAS IMAGINE Summer of 03)



# Review of Agenda

- Programs JPEG 2000 developments
  - NIL/IPL (Version 4.0)
  - IEC (being developed)
  - DCGS (migration planning)
- Two advanced technologies were presented
  - Complex SAR compression
  - JPEG 2000 Part 9: JPIP
    - This is now a standard



# Work Accomplished since CS2

- ISO JPEG Committee Standards
  - Current Work Items
    - JPEG 2000 Part 9: JPIP moved from CD to ISO Standard
    - JPEG 2000 Part 8: JPSEC Security moved from WD to CD
    - Part 10 Floating point and 3-D compression still at WD
    - Part 11 JPEG wireless Still at WD
    - Part 12 Common Format (MPEG-4, MJ2K) moved from CD to ISO standard
  - New Standards Started
    - Part 13 JPEG 2000 Standard Encoder
      - Concerned about IP with encoder versus decoder
  - New work items
    - Three new proposed work items



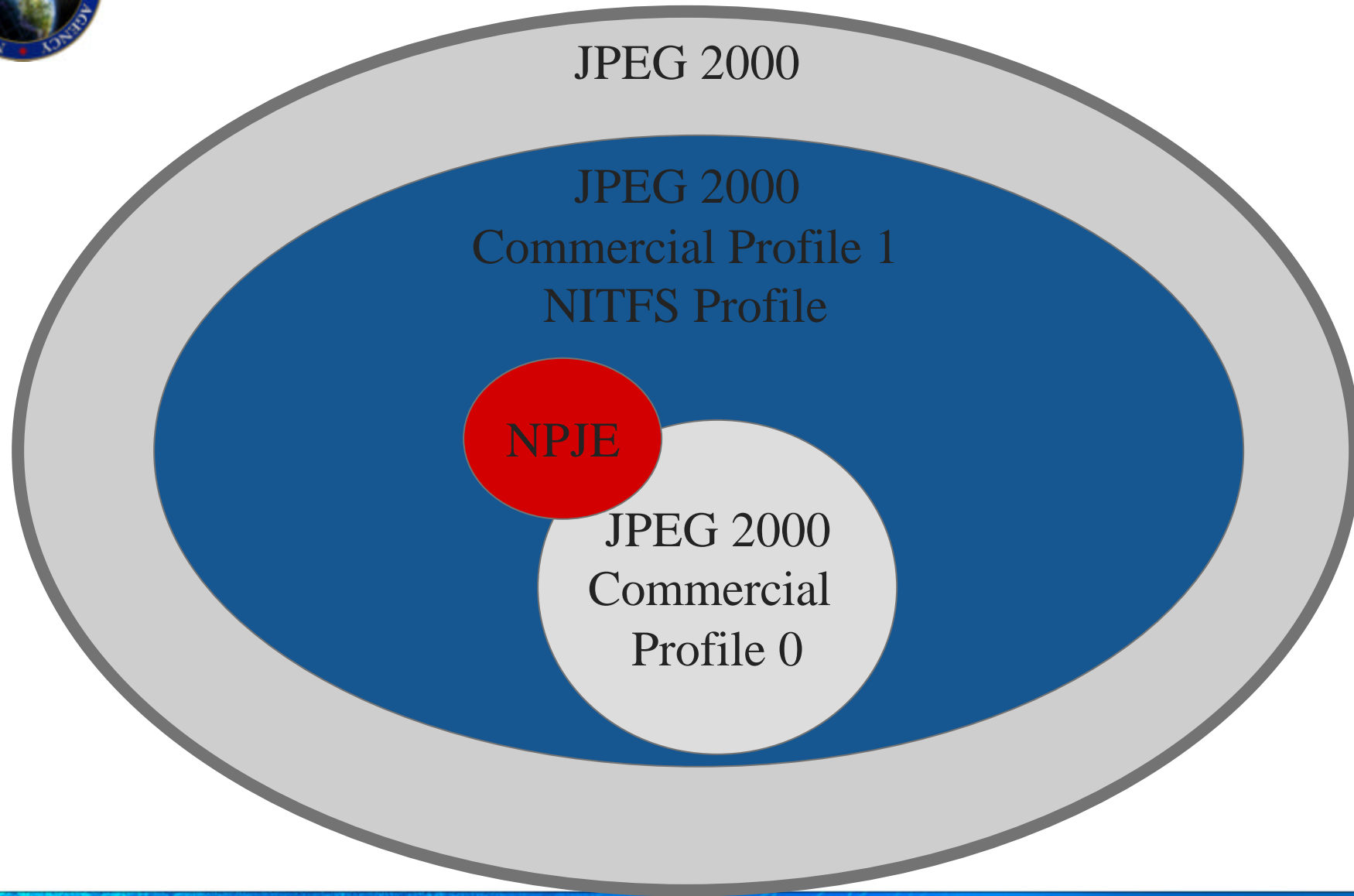


# Work Accomplished since CS2

- JPEG 2000 Profile Development
  - 2003
    - June SC24 meeting: Released Version 1.8 for comments (pre-vote)
    - Edited to version 1.9 with comments from SC 24 and the local experts
      - 120 comments resolved
        - » 118 from the experts, 2 from SC 24
      - Most minor typos
      - JITC
      - MITRE
      - Kodak
      - Aerospace
    - Send for official vote in December
  - 2004
    - Jan: Ballot-ready profile released by JITC
    - Feb: Approved by the NATO NSIF/4545 CST
    - June: Approved by SC 24 as a registered profile



# JPEG 2000 Standard and Profiles





# Work Accomplished since CS2

- NITFS 2.1 JPEG 2000 Compliance Testing
  - Have developed compliance testing procedures and test images
  - Currently testing commercial products
- Most producers are moving towards JPEG 2000 encoding
  - National
  - Tactical
  - Commercial
- Commercial system support
  - More commercial systems support JPEG 2000



# Commercial Software, IP, and Silicon

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## JPEG 2000 Software



**DSPG@UVic**  
Digital Signal Processing Group

## JPEG 2000 Firmware



**SYNOPSYS®**



## JPEG 2000 Silicon





# Commercial Products Supporting JPEG 2000

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The collage features a variety of logos and text elements:

- Top Row:** Nikon, YAHOO!, Messenger, NEC, TASC, ABSOLUTVISION (THE FIRST JPEG2000 PHOTO LIBRARY), Leica, amc.
- Second Row:** QuickTime, A Data Usability Company ANTENNA HOUSE, AccuSoft, LIZARDTECH (a celartem Company), BSi (Business Information), Atalasoft.
- Third Row:** Intelli Innovations inc., Texas Instruments, MapInfo Professional, XILINX, PentaWare, Zend (The php Company), PolyImage Features.
- Bottom Row:** stardust software (Non-native software), Netscape 7.0, Microsoft Internet Explorer, Windows Media 9 Series.